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THE AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE.

IS MUTATION A FACTOR IN THE EVOLUTION OF THE HIGHER VERTEBRATES?¹

THE stir created among botanists and horticulturists by the recent work of de Vries, particularly by his Berkeley lectures (1904) on 'The Origin of Species and Varieties by Mutation,' has led certain zoologists to believe that species of animals as well as plants may arise by the sudden assumption of new characters. Thus Davenport, in a recent review, expresses the conviction that 'as good an argument might be made from the zoological side as de Vries has made from the botanical.' The promulgation of these views by so eminent a student of evolution as Davenport, in connection with the circumstance that more or less similar views are held by others, has led me to reexamine certain groups of birds and mammals, of which I had previously made systematic studies, for the purpose of discovering evidence, if such exists, of the formation of species by mutation.²

But first let us be sure of de Vries's meaning. He states that individual plants of a certain species of evening primrose

¹ Address of the vice-president and chairman of Section F—zoology—at the New Orleans meeting of the American Association for the Advancement of Science.

² It is important that the terms used by de Vries should be understood. What we systematists have been in the habit of calling spontaneous variations or 'sports' he calls 'mutations'; what we call 'individual variations' he calls 'fluctuations'; and what we call the 'characters' of species he calls 'qualities.'